



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/785,464 | 02/24/2004 | Maurizio Tamburro | CM2601MC | 8597 |
| 27752 | 7590 | 10/18/2006 | EXAMINER | |
| THE PROCTER & GAMBLE COMPANY INTELLECTUAL PROPERTY DIVISION WINTON HILL BUSINESS CENTER - BOX 161 6110 CENTER HILL AVENUE CINCINNATI, OH 45224 | | | DAVIS, JENNA L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1771 | |
| DATE MAILED: 10/18/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/785,464

Applicant(s)

TAMBURRO ET AL.

Examiner

Jenna Davis

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Applicant's amendment filed on August 1, 2006, has been entered. Claim 8 has been amended. Claims 1-12 are currently pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelkenberg (U.S. Patent No. 5,496,933) in view of Kellenberger et al. (U.S. Patent No. 4,699,823) and Sackmann et al. (U.S. Patent No. 5,635,569).

With regard to claims 1,2, and 6, Kelkenberg teaches providing chitosan salts as powder in hygienic articles (column 4, lines 20-24). Kelkenberg teaches the particles may be water soluble (column 3, lines 35-47). Kelkenberg discloses that the particle sizes are much less than 1 mm (column 2, line 25) and that some particles are smaller than 1 micron (column 2, lines 26-27). Although the reference discloses using particles smaller than 1 micron, Kelkenberg does not

Art Unit: 1771

specifically teach the average particle size to be less than 300 microns. article. Kelkenberg is also silent as to the structure of the hygienic Kellenberger et al. teach a diaper material comprising a topsheet, backsheet, and absorbent core comprising superabsorbent particle material (See Figure 2 and Abstract). The absorbent core is hydrophilic (column 4, line 43) and the fibers of the core material would comprise the claimed "absorbent member." Kellenberger et al. teaches that the superabsorbent particles in the outer region of the core should have particles averaging less than 300 microns in size (column 6, lines 47-49). Sackmann et al. also teach that smaller particle sizes in superabsorbent materials allows for more rapid liquid intake (column 3, lines 44-48). Because Kelkenberg is silent as to the construction of an absorbent article comprising the superabsorbent particles, it would have been obvious to a person having ordinary skill in the art at the time of the invention to use the Kelkenberg chitosan salt particles at the average size of 300 microns or less in a diaper structure taught by Kellenberger et al. and to place those particles in the region adjacent the backsheet in order to provide a diaper with rapid intake towards the bottom of the core, as taught by both Kellenberger et al. and Sackmann et al. Regarding the limitation of a continuous and homogeneous region of sprayed on layer of particles of chitosan material that spans across void spaces on or within the absorbent member, the structure of the absorbent particles within Kellenberger et al. appear to meet this limitation (See Figure 3). The limitation that the particles are sprayed on is merely a process of making limitation in a product claim. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the

Art Unit: 1771

prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Kellenberger et al. teach the particles are distributed in a concentration gradient in the direction of the thickness of the batt (column 5, lines 38-41). Additionally, Kellenberger et al. also disclose that the particles are uniformly distributed across the length and width of the core material (column 5, lines 47-54). Thus, the particles would be present within the void spaces both on and within the fibrous batt and would also cover the fibers (i.e. constituents of the absorbent material). Regarding the limitation of the chitosan material being soluble in 100 grams of water at 25 degrees C and one atmosphere, although Kelkenberg does not explicitly teach the limitation of solubility in those terms, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. chitosan) and in the fact that Kelkenberg explicitly teaches that the chitosan is mixed with acid in order to make it soluble in cold water (See Example 1, for instance). The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed solubility would obviously have been provided by the process disclosed by Kelkenberg (see column 3, lines 28- 58).

With regard to claims 3, 4, 11, and 12, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6).

With regard to claim 5, Kellenberger et al. show additional layers of tissue sheets may be added (column 4, lines 45-47).

With regard to claim 7, Kelkenberg teaches only 20% of the chitin is acetylated (column 2, lines 46-48). With regard to claim 8, the chitosan can be mixed with lactic acid (column 4,

Art Unit: 1771

line 16). With regard to claim 9, Kellenberger et al. teach the fibrous core batt is air-formed (column 4, lines 43-44). With regard to claim 10, Kellenberger et al. teach the superabsorbent should be present in an amount between 12 and 15% by weight of the batt. Thus, the claimed amount of 0.1 to 200 g/m² of superabsorbent particles would be met so long as a person of ordinary skill in the art used an absorbent core that weighed between 0.8 and 1,333 g/m². It would have been obvious to a person having ordinary skill in the art at the time of the invention to use between of 0.1 to 200 g/m² of superabsorbent particles in the absorbent core of Kellenberger et al., since such range is so broad that practicing outside of it would make it impractical to actually produce an absorbent article.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b). Effective January 1, 1994, a registered attorney or agent of record may sign a terminal

Art Unit: 1771

disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-12 are rejected under the judicially created doctrine of obviousness- type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,833,487 in view of Kellenberger et al. and Sackmann et al.

The claims of the '487 Patent disclose an absorbent member containing chitosan salt particles. With regard to claims 1,2, and 6, the '487 Patent claims a disposable article having a topsheet, backsheet, and absorbent core having chitosan salt. Although the claims are silent as to the size of the particles and the placement in the layers, Kellenberger et al. teaches that the superabsorbent particles in the outer region of the core should have particles averaging less than 300 microns in size (column 6, lines 47-49). Sackmann et al. also teach that smaller particle sizes in superabsorbent materials allows for more rapid liquid intake (column 3, lines 44-48). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use chitosan salt particles at the size of 300 microns or less in the region adjacent the backsheet in order to provide a diaper with rapid intake towards the bottom of the core, as taught by both Kellenberger et al. and Sackmann et al. Regarding the limitation of chitosan solubility in water, such a property would be inherent to the chitosan salts claimed in the '487 Patent since the patent claims chitosan salt known to be soluble in water (claims 5 and 15) and since claim 8 of the present invention discloses that chitosan salts meet the limitation. The burden is upon Applicant to prove otherwise. With regard to claims 3, 4, 11, and 12, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6). With regard to claim 5, Kellenberger et al. show additional layers of tissue

Art Unit: 1771

sheets may be added (column 4, lines 45-47). With regard to claim 7, see claim 4 of the '487 Patent. With regard to claim 8, see claims 5 and 15 of the '487 Patent. With regard to claim 9, Kellenberger et al. teach the fibrous core batt is air-formed (column 4, lines 43-44). With regard to claim 10, see claim 14 of the '487 Patent.

Claims 1-12 are rejected under the judicially created doctrine of obviousness- type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,867,287 in view of Kellenberger et al. and Sackmann et al.

With regard to claims 1,2, and 6, the '287 Patent claims a disposable article having a topsheet, backsheet, and absorbent core having chitosan salt in an amount of 0.5 to 500 gsm (claim 1). Although the claims are silent as to the size of the particles and the placement in the layers, Kellenberger et al. teaches that the superabsorbent particles in the outer region of the core should have particles averaging less than 300 microns in size (column 6, lines 47- 49). Sackmann et al. also teach that smaller particle sizes in superabsorbent materials allows for more rapid liquid intake (column 3, lines 44-48). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use chitosan salt particles at the size of 300 microns or less in the region adjacent the backsheet in order to provide a diaper with rapid intake towards the bottom of the core, as taught by both Kellenberger et al. and Sackmann et al.

Regarding the limitation of chitosan solubility in water, such a property would be inherent to the chitosan salts claimed in the '287 Patent since the patent claims chitosan salt known to be soluble in water (claim 4) and since claim 8 of the present invention discloses that chitosan salts meet the limitation. The burden is upon Applicant to prove otherwise.

Art Unit: 1771

With regard to claims 3, 4, 11, and 12, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6). With regard to claim 5, Kellenberger et al. show additional layers of tissue sheets may be added (column 4, lines 45-47). With regard to claim 7, see claim 2 of the '287 Patent. With regard to claim 8, see claim 4 of the '287 Patent. With regard to claim 9, Kellenberger et al. teach the fibrous core batt is air-formed (column 4, lines 43-44). With regard to claim 10, see claim 1 of the '287 Patent.

Claims 1-12 are rejected under the judicially created doctrine of obviousness- type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,887,564 in view of Kellenberger et al. and Sackmann et al.

With regard to claims 1,2, and 6, the '564 Patent claims a disposable article having a topsheet, backsheet, and absorbent core having chitosan salt (claim 3). Although the claims are silent as to the size of the particles and the placement in the layers, Kellenberger et al. teaches that the superabsorbent particles in the outer region of the core should have particles averaging less than 300 microns in size (column 6, lines 47-49). Sackmann et al. also teach that smaller particle sizes in superabsorbent materials allows for more rapid liquid intake (column 3, lines 44-48). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use chitosan salt particles at the size of 300 microns or less in the region adjacent the backsheet in order to provide a diaper with rapid intake towards the bottom of the core, as taught by both Kellenberger et al. and Sackmann et al. Regarding the limitation of chitosan solubility in water, such a property would be inherent to the chitosan salts claimed in the '564 Patent since the patent claims chitosan salt known to be soluble in water (claim 8) and since claim 8 of the

Art Unit: 1771

present invention discloses that chitosan salts meet the limitation. The burden is upon Applicant to prove otherwise.

With regard to claims 3, 4, 11, and 12, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6). With regard to claim 5, Kellenberger et al. show additional layers of tissue sheets may be added (column 4, lines 45-47). With regard to claim 7, see claim 4 of the '564 Patent. With regard to claim 8, see claim 8 of the '564 Patent. With regard to claim 9, Kellenberger et al. teach the fibrous core batt is air-formed (column 4, lines 43-44). With regard to claim 10, see claim 10 of the '564 Patent.

Claims 1-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of copending Application No. 10/785,277 in view of Kellenberger et al.

With regard to claims 1, 2, and 6, the '277 Application claims an absorbent member with chitosan salts having similar particle diameter and solubility. The '277 Application does not disclose the presence of a topsheet or a backsheet. Kellenberger et al. teach that absorbent core material comprising absorbent particles should be sandwiched between a topsheet and a backsheet in order to form a diaper. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use the absorbent core of the '277 Application between a topsheet and a backsheet in order to form a diaper, as taught by both Kellenberger et al.

With regard to claims 3, 4, 11, and 12, see claim 10 of the '277 Application. With regard to claim 5, Kellenberger et al. show additional layers of tissue sheets may be added (column 4, lines 45-47). With regard to claim 7, see claim 5 of the '277 Application. With regard to claim 8,

Art Unit: 1771

see claim 6 of the '277 Application. With regard to claim 9, see claim 7 of the '277 Application.

With regard to claim 10, see claim 8 of the '277 Application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-6, 8, 9, 11, and 12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 11/021,634 in view of Kellenberger et al.

With regard to claims 1, 2, and 6, the '634 Application claims an absorbent member with chitosan salts having similar particle diameter. The '634 Application does not disclose the presence of a topsheet or a backsheet. Kellenberger et al. teach that absorbent core material comprising absorbent particles should be sandwiched between a topsheet and a backsheet in order to form a diaper. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use the absorbent core of the '634 Application between a topsheet and a backsheet in order to form a diaper, as taught by both Kellenberger et al. Regarding the limitation of chitosan solubility in water, such a property would be inherent to the chitosan salts claimed in the '634 Application since the patent claims chitosan salt known to be soluble in water (claim 4) and since claim 8 of the present invention discloses that chitosan salts meet the limitation. With regard to claims 3, 4, 11, and 12, one can see about 100% of the back surface of the diaper in Kellenberger et al. is covered by regions of superabsorbent particles (Figures 2-4 and 6). With regard to claim 5, Kellenberger et al. show additional layers of tissue sheets may be added (column 4, lines 45-47). With regard to claim 8, see claim 4 of the '634 Application. With

Art Unit: 1771

regard to claim 9, Kellenberger et al. teach the fibrous core batt is air- formed (column 4, lines 43-44).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

Applicant's arguments filed August 1, 2006, have been fully considered but they are not persuasive.

Applicant argues that the powders of Kelkenberg, Kellenberger et al., and Sackmann et al. are discrete granules and do not form a continuous and homogeneous layer that spans across void spaces and partially covers the constituent materials of the absorbent member. It is unclear how the Applicant is trying to distinguish the prior art from the claimed invention using this argument. After all, claim 1 of the present invention requires that the continuous and homogenous region be formed of particles of chitosan having a mean diameter of not more than 300 microns. Wouldn't "particles of chitosan" that have a similar size to a "chitosan powder" (from the prior art) also be considered discrete granules? The recitation of such particles in the claims is equivalent to a powder. The definition of powder is "finely dispersed solid particles" (emphasis added, The American Heritage® Dictionary of the English Language, Fourth Edition, available at www.dictionary.com). So if Applicant's argument that the powders of the prior art cannot form a continuous and homogenous layer were true, then further clarification is required as to why the "particles" of the present invention act differently than the "powder" of the prior art. Why would particles of chitosan form a continuous and homogenous layer, but powder not be able to? Kellenberger et al. meet the claim limitation for a continuous and homogenous region

Art Unit: 1771

of chitosan because the reference clearly shows superabsorbent particles uniformly present on the surface layer of the absorbent core (See Figures 2 and 3).

Applicant argues that the '487 Patent fails to teach at least one continuous and homogeneous region of chitosan material wherein at least 1 gram of said chitosan material is soluble in 100 grams of water at 25 degrees C and one atmosphere. However, claim 8 of the present invention indicates that chitosan salts meet this limitation. Since the '487 Patent is directed to chitosan salts, it is reasonable to presume this limitation is inherent to that invention. The burden is upon Applicant to prove otherwise.

Applicant argues that Kellenberger et al. and Sackmann et al. do not teach using chitosan. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that the '287 Patent fails to teach at least one continuous and homogeneous region of chitosan material wherein at least 1 gram of said chitosan material is soluble in 100 grams of water at 25 degrees C and one atmosphere. However, claim 8 of the present invention indicates that chitosan salts meet this limitation. Since the '287 Patent is directed to chitosan salts, it is reasonable to presume this limitation is inherent to that invention. The burden is upon Applicant to prove otherwise.

Applicant argues that the '564 Patent fails to teach at least one continuous and homogeneous region of chitosan material wherein at least 1 gram of said chitosan material is soluble in 100 grams of water at 25 degrees C and one atmosphere. However, claim 8 of the

Art Unit: 1771

present invention indicates that chitosan salts meet this limitation. Since the '564 Patent is directed to chitosan salts, it is reasonable to presume this limitation is inherent to that invention. The burden is upon Applicant to prove otherwise.

Applicant argues that the '634 Application fails to teach at least one continuous and homogeneous region of chitosan material wherein at least 1 gram of said chitosan material is soluble in 100 grams of water at 25 degrees C and one atmosphere. However, claim 8 of the present invention indicates that chitosan salts meet this limitation. Since the '634 Application is directed to chitosan salts, it is reasonable to presume this limitation is inherent to that invention. The burden is upon Applicant to prove otherwise.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

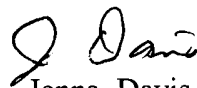
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 1771

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna Davis whose telephone number is 571-272-3357. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1111. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jenna Davis
Primary Examiner
Art Unit 1771

Jld
571-272-3357